

REMARKS

Entry of this amendment in, and reconsideration of, this application are respectfully requested.

Claims 1 through 24 remain in this case. Claim 12 is amended.

The undersigned apologizes for the error regarding the proper designation of the status of claim 23 in the previous amendment. Claim 23 is properly designated in this paper.

Claims 1 through 11 were finally rejected under §112, first paragraph, as failing to comply with the written description requirement. The Examiner found that the newly added limitation of “locally wirelessly transmit the content” is not supported in the specification of this application.

Applicants respectfully traverse the §112 rejection, on the grounds that the specification clearly supports this limitation in claim 1 and its dependent claims. The specification provides specific examples of communications technology by way of which an access device locally wirelessly transmits content to a receiver in the form of HTML commands. The specified examples include “Bluetooth” communications, IEEE 802.11a communications, IEEE 802.11b communications, and IrDA (infrared) communications.¹ Each of these communications technologies are clearly “local” in nature. The Bluetooth protocol is well-understood in the art as referring to a particular type of low-power, short-range, communications technology.² IrDA communications refer to a standard for short-range infrared communications protocols.³ And the IEEE 802.11a and 802.11b standards are well-known wireless standards for use in “local area networks”.⁴ These specified technologies are each wireless communications technologies, and are well-known as useful in short-range or “local” communications applications.

¹ Specification of S.N. 09/802,353, as published as U.S. Patent Application Publication No. US 2001/0054114 A1, paragraph [0018].

² See <http://en.wikipedia.org/wiki/Bluetooth>.

³ See <http://en.wikipedia.org/wiki/IrDA>.

⁴ See http://en.wikipedia.org/wiki/IEEE_802.11.

Accordingly, Applicants submit that the modifier “locally wirelessly” in claim 1 is clearly supported by these examples of the type of communications carried out in the preferred embodiments of the invention described in the specification.

Applicants therefore respectfully traverse the final rejection of claims 1 through 11 under §112, on the grounds that the specification of this application supports the limitations of claim 1, including the modifier “locally wirelessly”.

Claims 1 through 3, 5, 10 through 15,⁵ 16, 18, and 22 through 24 were finally rejected under §103 as unpatentable over the Naden reference⁶ in view of the Lee reference⁷. Claims 6 and 19 were finally rejected under §103 as unpatentable over the Naden and Lee references, further in view of the Lemilainen et al. reference⁸. Claims 7 through 9, 20, and 21 were finally rejected under §103 as unpatentable over the Naden and Lee references, further in view of the MacAuley et al. reference⁹. Claims 4 and 17 were finally rejected under §103 as unpatentable over the Naden and Lee references, further in view of Official Notice taken by the Examiner regarding XML data.

The Examiner again rejected independent claims 1 and 12 on the basis that the Naden reference teaches all of the elements of the claim, except for explicitly teaching that the data transferred by its PDA to the projection system includes HTML commands. The Examiner found that the Lee reference teaches an LCD projector that receives Internet image signals from a user PC for display, and that it would have been obvious to the skilled artisan to combine these teachings into the Naden system to permit Internet content viewed on the PDA to be sent to the projector.

Applicants maintain that claim 1 and its dependent claims are patentably distinct over the references applied by the Examiner. Specifically, Applicants submit that the combined teachings of the references fall short of teaching or suggesting an access device that wirelessly accesses

⁵ Although not listed in the summary of the §103 rejection (page 6), claim 14 is rejected under §103 on specific grounds. Office Action of March 18, 2008, page 9.

⁶ U.S. Patent No. 7,057,635 B1, issued June 6, 2006 to Naden, from an application filed January 27, 2000.

⁷ U.S. Patent No. 6,337,769 B1, issued January 8, 2002 to Lee, from an application filed December 6, 1999.

⁸ U.S. Patent No. 6,681,239 B1, issued January 20, 2004 to Lemilainen et al.

⁹ U.S. Patent No. 6,663,560 B2, issued December 16, 2003 to MacAuley et al.

Internet content comprising HTML commands, and that then locally wirelessly transmits that content for receipt and processing by a display device, as claimed.

In the current Office Action, the Examiner asserted that Applicants' previous arguments were "against the references individually", rather than directed to his rejection that was based on a combination of references.¹⁰ The undersigned invites the Examiner to re-read the previous arguments, and to closely read the following arguments in this paper. Such a reading will show that Applicants urge that the combined teachings of the applied references fall short of the requirements of the claims.¹¹ In making such an argument that none of a group of references teach a particular element, the undersigned sees no alternative to showing first that Reference #1 does not teach the element, and then showing that Reference #2 does not teach that element, and so on. One must address each reference individually in arguing that a particular element is not taught by any of a group of references. Such an approach, taken by Applicants in the previous Amendment, is not a failure to address the rejection as a combination of references, as accused by the Examiner.

Applicants submit that claim 1 and its dependent claims are all patentably distinct over the references applied in the final rejection. Specifically, Applicants submit that the combined teachings of the references fall short of the requirements of claim 1, and that it would not be obvious to one of ordinary skill in the art to modify those combined teachings so as to reach claim 1.

As previously argued, the display system of claim 1 comprises an access device operable to wirelessly access content comprising HTML commands from a server via the Internet, and to locally wirelessly transmit that content. The claimed system also comprises a display device, comprised of an RF receiver operable to receive the content comprising HTML commands from the access device, and a processor programmed to interpret the HTML commands and to

¹⁰ Office Action, *supra*, page 2.

¹¹ See Amendment of December 17, 2007, page 7 ("Specifically, Applicants submit that the combined teachings of the references fall short of teaching or suggesting an access device that wirelessly accesses Internet content comprising HTML commands, and that then locally wirelessly transmits that content for receipt and processing by a display device, as claimed."), and page 8 ("And because the Lee reference also lacks teachings regarding this wireless Internet access by the access device, Applicants submit that the combined teachings of the references fall short of the requirements of claim 1 and its dependent claims.").

generate pixel data based on those commands. Applicants submit that none of the applied references teach an access device that wirelessly transmits content including HTML commands, nor a display device that receives that content and that includes a processor programmed to interpret the HTML commands and generate pixel data based on those commands.

In the final rejection, as before, the Examiner asserts that the Naden reference teaches all of the elements of claim 1, except for explicitly teaching the data transferred from its PDA to its projection system is HTML commands.¹² Applicants agree that the Naden reference fails to disclose this element.

Applicants further assert that the Naden reference therefore necessarily fails to teach a processor, in the display device, that is programmed to interpret HTML commands and to generate pixel data based on those commands, also as required by claim 1; the Examiner instead asserts that the Naden reference teaches a processor programmed to interpret “graphics data”.¹³

Graphics data and HTML commands are two different things. HTML commands are known in the art as commands within the HyperText Markup Language that define the structure and layout of a Web document, using tags and attributes.¹⁴ These HTML commands are not the equivalent of graphics data, as insinuated by the Examiner, but rather must be interpreted by a processor, for example a processor executing a “micro-browser” application under a real time operating system,¹⁵ to produce graphics data that are then displayable. For example, as described in the specification of this application, microprocessor 22 is programmed with a “micro-browser” application, including add-ons and plug-ins as necessary, operating under a RTOS; a graphics rendering unit translates commands generated by this browser application into pixel data.¹⁶

This distinction between the processor programmed to interpret HTML commands and to generate pixel data based on those commands, and the graphics processor of the Naden reference is especially evident from the Naden reference itself. The “graphics chip” of the Naden

¹² Office Action, *supra*, page 7.

¹³ Office Action, page 7.

¹⁴ See specification, *supra*, paragraph [0013].

¹⁵ Specification, *supra*, paragraphs [0021] through [0023].

¹⁶ *Id.*

reference is described as having the function of uncompressing, or rasterizing, compressed graphics files for display purposes.¹⁷ No processor for interpreting HTML commands, or executing high level applications of any sort on commands communicated by an access device, is disclosed as contained within its projection system. Indeed, the Naden reference expressly teaches that its PDAs (and not a processor in the projection system) that are the devices that execute applications on data in source format, to produce the graphics information that is rasterized by the graphics chip of the projection device.¹⁸

Applicants therefore submit that the Naden reference fails to disclose an access device that transmits content comprising HTML commands to a display device, and also fails to disclose a processor in the display device that is programmed to interpret the HTML commands and to generate pixel data based on those commands.

Applicants further submit that the Lee reference also fails to disclose these features of claim 1. In making the final rejection, the Examiner asserted that the Lee reference teaches an LCD projector that receives “Internet image signals” from a user PC and then displays the image.¹⁹ The Examiner maintained the rejection on the grounds that these “Internet image signals” disclosed by the Lee reference corresponded to the content comprising HTML commands transmitted by the access device of claim 1, and interpreted by the processor in the display device of claim 1. Applicants disagree.

It is useful, in this regard, to more fully quote the cited passage of the Lee reference:

As shown in FIG. 8, the LCD projector 50 for displaying variable image signals has variable connecting terminals for permitting connection to PC 55, VCR 60, TV 65, camcorder 70, DVD 75, etc. For example, when wanting Internet scene displayed on the blinds, an operator connects the PC 55 to the connecting terminal of the LCD projector 50 and then connects with the Internet. Then, the LCD projector 50 receives Internet image signals from the PC 55 and then displays the image on the blinds such that the image can be viewed out of the window 14.

On/off control of the projecting device can be managed with use of a wire or wireless control device.

¹⁷ Naden, *supra*, column 5, lines 3 through 16 and lines 34 through 39.

¹⁸ Naden, *supra*, column 5, lines 3 through 16.

¹⁹ Office Action, *supra*, page 7, citing Lee, column 3, lines 48 through 54.

Similar to the PC 5 , images from the VCR 60 , the TV 65 , the camcorder 70 and the DVD 75 can be viewed out of the window 14 when projecting the images on the blinds with use of the LCD projector 50 .²⁰

First, there is nothing in this passage that indicates that the “Internet image signals” received by LCD projector 50 from PC 55 include HTML commands. The passage merely states that “Internet image signals” are received by LCD projector 50 at its “connecting terminal”. Second, there is nothing in this passage that indicates or hints that the LCD projector 50 of the Lee reference includes any sort of processor, much less one capable of interpreting HTML commands. Third, the LCD projector 50 is disclosed as also having “terminals” for connecting to a VCR, TV, camcorder, DVD, none of which are capable of providing any sort of higher-level commands other than analog or digital raster-scan signals. Applicants therefore submit that the only fair reading of the cited passage of the Lee reference is that the “Internet image signals” communicated from the PC to the LCD projector are direct video signals (*e.g.*, RGB or composite video signals) that *represent* an image obtained from the Internet. In other words, the modifier “Internet” in the term “Internet image signals” connotes nothing about the form or nature of the signals, other than the ultimate source from which the PC 55 obtained the image.

Accordingly, Applicants submit that neither of the Naden or Lee references teach the claim limitations of an access device operable to wirelessly access content comprising HTML commands from a server via the Internet and to locally wirelessly transmit the content, and of a display device comprising a processor programmed to interpret the HTML commands and to generate pixel data, based on the HTML commands, both as required by claim 1 and its dependent claims. Nor do any of the other references cited against the claims provide such teachings. The combined teachings of the cited references²¹ therefore fall short of the requirements of claims 1 through 11.

Applicants further submit that it would not have been obvious to the person of ordinary skill in the art to have combined these teachings of these references, and then further modified those combined teachings, in such a manner as to reach claim 1. This lack of obviousness is made apparent by the substantial nature of the differences between the claimed subject matter

²⁰ Lee, *supra*, column 3, lines 46 through 60.

²¹ Or, if the Examiner prefers, “the teachings of the cited references, taken in combination”.

and the prior art, particularly in the important advantages provided by the claimed invention. According to the claimed invention, content can be acquired by a user from a server via the Internet, and displayed at a local display device such as a projector, at the full resolution of the projector rather than at the much lower resolution of the PDA or other wireless device.²² Because the content acquired by the access device is transmitted to and interpreted by the projection system by way of HTML commands and compressed files, rather than as full video and graphics as if the projection system were a display for the access device, the bandwidth requirements for the local wireless link and the computational capacity of the access device are much reduced.²³ This enables the implementation of the claimed system in relatively low cost projection systems having modest communications bandwidth, because the display device can interpret and process HTML commands transmitted from the PDA.²⁴ In addition, the low-bandwidth communications enables the use of conventional known communications protocols, such as Bluetooth, that are simple to set up and synchronize.²⁵ In contrast, the systems of the Naden and Lee reference require substantially higher bandwidth communications to the projection displays.²⁶ There is no suggestion from the cited references to modify their combined teachings so as to provide such a system, and the resulting benefits.

For these reasons, Applicants respectfully submit that claim 1 and its dependent claims are patentably distinct over the Naden and Lee references, as well as the other prior art of record in this case.

Claim 12 is amended to clarify its patentability over the applied references. Amended claim 12 now recites that the step of interpreting the HTML commands is performed using a processor embedded in the display device. Given the clear support for this amendment in the specification,²⁷ and also the corresponding recitation of the processor in claim 1, Applicants submit that no new matter is submitted by this amendment to claim 12.

²² Specification, *supra*, paragraph [0002].

²³ Specification, *supra*, paragraph [0003].

²⁴ Specification, *supra*, paragraph [0003].

²⁵ Specification, *supra*, paragraph [0018].

²⁶ See Naden, *supra*, column 1, lines 17 through 25.

²⁷ Specification, *supra*, paragraphs [0021] through [0023].

Applicants maintain that amended claim 12 and its dependent claims are patentably distinct over the references applied by the Examiner, for similar reasons as discussed above relative to claim 1. In short, Applicants submit that the combined teachings of the applied references do not teach the receiving of content from a server accessed via the Internet, such content in the form of HTML commands, and the transmitting of those HTML commands to a display device, followed by the interpreting of those commands and the displaying of pixel data generated therefrom at the display device.

Claim 12 was rejected on a similar basis as claim 1.²⁸ This rejection is based on the assertion that the Naden reference teaches a PDA that wirelessly accesses the Internet, and that the Lee reference teaches an LCD projector that receives Internet image signals, such that it would have been obvious to combine these references to reach the method of claim 12, by way of which the PDA access the Internet to obtain content that is then displayed by the projection system.²⁹

Applicants again agree that the Naden reference fails to disclose that the data transferred from its PDA to its projection system is or includes HTML commands.³⁰ However, Applicants assert that the Naden reference therefore necessarily fails to teach the interpreting of the HTML command transmitted from the access device using a processor in the display device, and the generating of pixel data based on those commands using that processor.

While the Examiner asserts that the Naden reference teaches a processor programmed to interpret “graphics data”,³¹ Applicants submit that this “graphics data” does not correspond to content in the form of HTML commands. As discussed above in more detail relative to claim 1, graphics data and HTML commands are, and are understood by those skilled in the art to be, two different things. HTML commands are not the equivalent of graphics data, but must be interpreted by a processor, for example a processor executing a “micro-browser” application under a real time operating system,³² to produce graphics data that are then displayable. As such,

²⁸ Office Action, *supra*, page 8.

²⁹ Office Action of July 16, 2007, page 3, *citing* Naden, *supra*, column 4, lines 60 through 67.

³⁰ Office Action, *supra*, page 7; page 8 (applying the rejection of claim 1 against claim 12).

³¹ Office Action, page 7.

³² Specification, *supra*, paragraphs [0021] through [0023].

the Naden reference discloses no processor or other device in its projection system that interprets HTML commands, or executes high level applications of any sort on commands communicated by an access device. Rather, the reference teaches that its PDAs execute applications on data in source format, to produce graphics information that is rasterized at the projection device.³³

Applicants therefore submit that the Naden reference fails to disclose the transmitting of HTML commands from an access device to a display device, and fails to disclose the interpreting of those HTML commands and the generating of pixel data based on those commands, using a processor embedded in the display device, as claimed.

Applicants further submit that the Lee reference also fails to disclose these steps of amended claim 12. Contrary to the assertion by the Examiner, the Lee reference nowhere discloses or suggests that the “Internet image signals” received by its LCD projector 50 from its PC 55 include HTML commands. Consistent with this lack of mention of HTML or any other higher-level commands, there is nothing in the Lee reference indicating that its LCD projector 50 of the Lee reference includes any sort of processor, much less one capable of interpreting HTML commands as recited in the method of claim 12. The simple recitation in the reference of “terminals” of the LCD projector for connecting to a VCR, TV, camcorder, DVD, along with the terminal to which the PC is connected, indicate that none of these inputs include any sort of higher-level commands other than analog or digital raster-scan signals, and thus no processing capability for interpreting commands is necessary or present in the projector. Rather, Applicants submit that the phrase “Internet image signals” in the Lee reference merely indicates that the *image represented by* the direct video signals (*e.g.*, RGB or composite video signals) communicated to the LCD projector was obtained from the Internet; the modifier “Internet” in the term “Internet image signals” connotes nothing about the form or nature of the signals, other than the ultimate source from which the PC 55 obtained the image.

Accordingly, Applicants submit that neither of the Naden or Lee references teach the transmitting or interpreting steps of amended claim 12. The other references cited against the dependent claims in this case also fail to disclose these steps. Therefore, the combined teachings

³³ Naden, *supra*, column 5, lines 3 through 16.

of the applied references fall short of the requirements of amended claim 12 and its dependent claims 13 through 24.

Applicants further submit that it would not have been obvious to the person of ordinary skill in the art to have combined these teachings of these references, and then further modified those combined teachings, in such a manner as to reach the method of claim 12, for the same reasons as discussed above. In short, the important advantages provided by the apparatus of claim 1 also result from the method of claim 12, namely the reduction in the necessary bandwidth for communications between the access device and the display device, while still attaining a full resolution image at the display device rather than the crude bit map or other low-resolution image that the access device may be limited to. The ability to use low-bandwidth communications permits low-cost and simple to use wireless communications technologies, such as Bluetooth. These advantages are not attainable from conventional systems, such as those described in the Naden and Lee references.

For these reasons, Applicants respectfully submit that amended claim 12 and its dependent claims are patentably distinct over the Naden and Lee references and the other prior art of record in this case.

Applicants therefore respectfully submit that entry of this amendment will place all claims in this case into condition for allowance. Alternatively, Applicants submit that entry of this amendment will place this case in better condition for appeal.

Entry of this amendment in, and favorable reconsideration of, this application are respectfully requested.

Respectfully submitted,
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